REMARKS

Applicants hereby respond to the Official Action dated March 12, 2004. Entry of the foregoing amendments, and reconsideration of claims 1-7, are respectfully requested.

The specification is being amended in paragraphs 0028 and 0056 to delete one redundant word from each paragraph.

Claim 1 is amended so that step (C) calls for applying all of the aqueous solution of ozone from the tank onto the surface being sanitized. The feature that all of the ozone dissolved in the solution is applied to the surface being sanitized is disclosed in applicants' specification in paragraph 0055, lines 7-8, in the statement that "all the dissolved ozone comes immediately into direct contact with the surface of the object that needs to be sanitized". For this statement to be complied with, all of the aqueous ozone solution that leaves the tank in step (C) must be applied to the surface being sanitized, so this amendment to the claims brings conformity with the specification.

Claims 1-4 and 7 stand rejected under 35 U.S.C. 103(a) as obvious from U.S. Patent No. 5,368,815 ("Kasting, Jr.") in view of U.S. Patent No. 5,431,939 ("Cox") and further in view of JP 405277475 ("Ishida"). This rejection is respectfully traversed.

There are several reasons that the claims are not suggested by the cited combination of references.

One reason is that the claims as amended herein require that all of the aqueous ozone solution coming from the tank is applied to the surface being

sanitized. Kasting (see Figure 2) clearly requires not one but two lines, 90 and 98, by which ozonated solution that is withdrawn from his tank 12 is returned to tank without ever being applied to articles being sanitized. In other words, applicants' claims as amended omit any such return lines, whereas Kasting requires such return lines. And Kasting does not suggest omitting those return lines, which means that Kasting does not suggest applicants' claimed method.

Neither Cox nor Ishida provides teaching or suggestion that fills in this difference between applicants' claims and Kasting. Indeed, neither Cox nor Ishida contains any disclosure relating to preparing and applying aqueous sanitizing solutions of ozone. Although applicants disagree that Cox and Ishida can properly be combined with Kasting under any circumstances, applicants will note that any possible combination of the teachings of Kasting, Cox and Ishida still leaves one far from the method now claimed by applicants which omits Kasting's bypass lines.

Another reason that claims 1-4 and 7 are not obvious from the cited combination of Kasting, Cox and Ishida is that there is no suggestion or motivation in the prior art to combine the various features from the various references that allegedly disclose those features. It is well established law that without that motivation, the cited combination of references does not support the obviousness rejection.

For instance, Cox relates to treatment of whole eggs in the shell by injecting any of various gases into the egg through the shell; ozone can be one of those gases. But Cox does not relate at all to forming

and applying aqueous sanitizing solutions. Anyone who contemplates combining Kasting with Cox would have to omit the solution forming step, so as to administer ozone as a gas (which is what Cox discloses).

So even though Cox is cited as disclosing manufacturing ozone from oxygen of at least 90 volume percent purity, one skilled in this art sees that Cox employs that step for reasons that are totally unrelated to the reasons that applicants use high purity oxygen in their step (A.1). Applicants do so to achieve advantages related to the formation of the aqueous sanitizing solution. No one would consider Cox relevant to that purpose because Cox does not relate at all to forming aqueous sanitizing solutions.

The passage in Cox referred to by the Examiner (column 24, lines 52-57) also states that the high-purity oxygen feed was <u>partially reacted</u> to ozone - which gives another reason why one would not consider Cox relevant to applicants' invention. Applicants' use of high purity oxygen facilitates dissolving higher amounts of ozone into the aqueous stream - yet Cox discloses converting only part of the oxygen feed into ozone, thereby teaching away from any relevance to forming high-concentration aqueous solutions of ozone.

In other words, Cox's use of high purity oxygen has been lifted utterly out of a very different context. Without any reason to apply that feature into Kasting - and the art provides no such reason - the legal standard for combining the teachings has not been met.

Similarly, Ishida has been cited as disclosing providing an aqueous solution of pH 7 to 9 and

adjusting the pH to be in that range, but this disclosure is in a completely different context that does not suggest incorporating applicants' step (A.2) into applicants' claimed method.

Ishida discloses a method for disinfecting water that is contaminated with organic substances, using ozone. Thus, Ishida is directed to water purification, not to forming an aqueous solution, containing appreciable amounts of ozone, that is used to desanitize another surface. The difference is significant: to disinfect contaminated water (Ishida's objective), one uses only enough ozone to do that job, since the desired final product must be water that is free of extraneous ozone as well as free of other contaminants. And Ishida says exactly that in the last line of the English translation, which speaks of "using a small ozone injection amount" as though that is an advantage. Applicants on the other hand, disclose that they are interested in forming an aqueous solution of ozone having significant amounts of ozone dissolved therein - which Ishida teaches away from.

Therefore, Ishida's disclosure of maintaining a particular pH range in the water is <u>to facilitate using the ozone to disinfect that contaminated water</u>. This is not a suggestion of using water of any particular pH in the formation of an aqueous solution that contains ozone.

In fact, since Ishida teaches that using a pH range of 7-9 facilitates adding <u>less</u> ozone to the water, Ishida fails to suggest any pH that will facilitate adding <u>more</u> ozone into solution.

It therefore follows that Ishida cannot be combined with Kasting and Cox to lead one to applicants' invention as claimed. The prior art contains no suggestion or motivation to combine the features that have been taken out of very different contexts. And as shown above, Ishida teaches away from applicants' invention so that any combination with Kasting and Cox leads one away from applicants' invention.

The foregoing remarks apply not only to claim 1 but also to claims 2-4 and 7 which depend from claim 1. Therefore, for all the foregoing reasons, applicants respectfully submit that claims 1-4 and 7 are not obvious and that the rejection of claims 1-4 and 7 based on Kasting in view of Cox and Ishida should be withdrawn.

Claims 5-6 stand rejected under 35 U.S.C. 103(a) as obvious from Kasting in view of Cox and further in view of Ishida and U.S. Patent No. 4,409,188 ("Silberzahn"). This rejection is respectfully traversed.

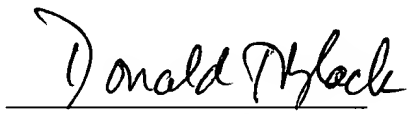
Claims 5 and 6 depend directly or indirectly from claim 1. Claims 5 and 6 are therefore patentably distinct from the combination of Kasting, Cox and Ishida for the reasons given above. Silberzahn does not teach or suggest the several differences between claim 1 and the teachings of Kasting, Cox and Ishida. And Silberzahn does not provide any suggestion or motivation to modify and combine the references' teachings in any way that would bring one closer to applicants' invention as claimed.

Silberzahn is cited only as disclosing a tank vent and an ozone destroyer. Even if those features are added to Kasting, the overall result still does not provide or suggest the method claims by applicants.

Therefore, applicants respectfully submit that the rejection of claim 5-6 should be withdrawn.

For all the foregoing reasons, applicants respectfully submit that this application is in condition for allowance.

Respectfully submitted,



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